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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,903	07/25/2003	Clarence E. Cowan	TAL:1016.098	2423
7590	07/13/2004			
Chernoff Vilhauer McClung & Stenzel, L.L.P. 1600 ODS Tower 601 SW Second Avenue Portland, OR 97204-3157			EXAMINER CHAN, EMILY Y	
			ART UNIT 2829	PAPER NUMBER

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/626,903		COWAN ET AL.	
	Examiner		Art Unit	
	Emily Y Chan		2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peters et al ('263).

1. Regarding to claims 1 and 11, Peters et al ('263) disclose a probe station having inner and outer shielding (see Fig. 2) and expressly teach an enclosure (see Fig. 1) for a probe station chuck (14), said probe station chuck (14) including a device supporting surface (42a) (see Col. 3, lines 27-28) and a thermal device (thermal heaters) (see Col. 3, line 16), said enclosure (see Fig. 1) comprising a conductive wall including:

(a) an inner surface (54 see Fig. 1) defining a chamber (52) substantially enclosing said device supporting surface (42a) and having a portion (66) separating said device supporting surface (42a) from said thermal device (thermal heater)(see Col. 4, lines 36-37); and

(b) an out surface (12) including a portion (housing 24a) substantially encircling a portion of the thermal device (see Fig.3 and Col. 4, line 30).

Peters et al ('263) do not specify that their thermal device (thermal heater) is arranged to modify a temperature of the device supporting surface (42a).

Kholodenko et al ('755) disclose an apparatus (see Fig. 1) including an enclosure (25) for electrostatic chuck and exclusively teach a heater 235 comprising a resistive heating element 255 and a temperature controller 275 for modifying the temperature of the device supporting surface (120, 30) (see Col. 9, lines 61-66 and lines 14-21).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the feature of modifying the temperature of the supporting surface (substrate 30) as taught by Kholodenko et al ('755) into Peters et al ('263) 's thermal heater for the expected benefit of having a uniform and low thermal impedance to transfer heat to and from the substrate to allow rapidly heating or cooling of the substrate as disclosed by Kholodenko et al ('755) (see Col. 2 lines 28-46).

2. Regarding to claims 2-3 and 12-13, Peters et al ('263) teach an electrically conductive connection of said conductive wall (54) to an instrument (see Col. 3, lines 35-36) and an electrically conductive connection of the instrument to a ground (see Fig. 2, EARTH, 32, 22)

3. Regarding to claims 4 and 14, Peters et al ('263) teach

(a) an electrically conductive connection of said conductive wall (54) to an instrument (see Col. 3, lines 35-36); and

(b) a switch (56) having a first terminal selectively connectable to a second terminal, said second terminal being conductively connected to said conductive wall (54) and said first terminal being conductively connected to a ground (see Fig. 2, EARTH).

4. Regarding to claims 5 and 15, Peters et al ('263) teach an electrically conductive

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connection of the instrument to a ground (see Fig. 2, EARTH, 32, 22).

5. Regarding to claims 6 and 16, Kholodenko et al ('755) teach a portion (300) separating the device supporting surface (120, 30) from an electrical conductor arranged to conduct electrical energy (260) from a controller (275) to the thermal device (235, 255) (see Abstract and. Col. 10, lines 14-21).

6. Regarding to claims 7-8 and 17-18, Peters et al ('263) teach an electrically conductive connection of said conductive wall (54) to an instrument (see Col. 3, lines 35-36) and an electrically conductive connection of the instrument to a ground (see Fig. 2, EARTH, 32, 22).

7. Regarding to claims 9 and 19, Peters et al ('263) teach

(a) an electrically conductive connection of said conductive wall (54) to an instrument (see Col. 3, lines 35-36); and

(b) a switch (56) having a first terminal selectively connectable to a second terminal, said second terminal being conductively connected to said conductive wall (54) and said first terminal being conductively connected to a ground (see Fig. 2, EARTH).

8. Regarding to claims 10 and 20, Peters et al ('263) teach an electrically conductive connection of the instrument to a ground (see Fig. 2, EARTH, 32, 22).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Costello et al ('203) disclose an enclosure for the device under test and a temperature controlled chuck. Costello et al ('203) also disclose a temperature modifying means (see Col. 4, lines 20-25).

Sano ('482) discloses a probe device comprising a vessel or an enclosure that accommodates a wafer mounting stand (3) and a probe card. Sano ('482) also discloses a temperature adjustment means that is built into the wafer mounting stand (3) (see Col. 4, lines 57-59).

Schwindt ('529) discloses probe station temperature controlling means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Y Chan whose telephone number is 5712721956. The examiner can normally be reached on 8:30-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cuneo Kammie can be reached on 5712721957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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